DOCUMENT RESUME

ED 319 633 SE 051 475

AUTHOR Garb, Yaakov Jerome
TITLE Responding to the Environmental Crisis: the Pedagogic Challenge.
PUB DATE 90
NOTE 20p.; Paper presented at the Annual Meeting of the American Educational Research Association (Boston, MA, April 16-20, 1990).
PUB TYPE Viewpoints (120) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *College Science; *Conflict Resolution; *Controversial Issues (Course Content); *Course Descriptions; Educational Philosophy; Environmental Education; Global Approach; Higher Education; *Interdisciplinary Approach; Natural Resources; *Teaching Methods

ABSTRACT

In this speech, the author describes what has been learned through years of experience teaching an introductory course in environmental issues at the University of California at Berkeley. The course is described as a broad interdisciplinary survey of the various environmental problems facing the earth; it is an examination of local and global issues. The challenge then is threefold: to give students knowledge and understanding of the technical facts; to enable students to assimilate and integrate the information into their understanding of the world; and to enable them to generate solutions for the various issues. Teaching methods used in the course are discussed as well as several philosophical issues including idealism, individualism, and splitting and romanticism. A list of 36 references is included. (CW)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED319633

"Moral Responsibility and the Natural Environment"

Responding to the Environmental Crisis: the Pedagogic Challenge

Yaakov Jerome Garb
Science and Mathematics Education/Conservation and Resource Studies
University of California, Berkeley

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☑ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Yaakov Jerome Garb

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Presented at the symposium "Educating for Moral Responsibility Across Societal Contexts" at the 1990 meeting of the American Educational Research Association meeting, Boston, Mass. Author's address: Yaakov Garb, Box 40018, Berkeley, CA 94704.

SE051475

BEST COPY AVAILABLE

Responding to the Environmental Crisis: the Pedagogic Challenge

INTRODUCTION

In this talk I want to offer some observations on the question of how to educate for responsibility towards the environment.[1] As will become clear, by responsibility I mean the "ability to respond" adequately to environmental problems, and this ability requires a psychological, cognitive, and, for lack of a better word, political as well as a moral readiness.

The bulk of trends and patterns I discuss in this talk are derived from my experience working with undergraduates in a university setting, specifically an introductory course in environmental issues at U.C. Berkeley, and especially from the analysis of several hundred student papers. These were submitted over the period of three semesters in response to an assignment in which I asked students to document and reflect on how they were affected and influenced by the course. Though some of the phenomena I discuss here are especially acute in this particular age group (young adults), much of the observation and analysis which follows should be useful in thinking about people's encounter with environmental problems more generally. In some ways the whole nation, whether it likes it or not, is undergoing a crash course in environmental issues, for we are being confronted daily with information about the ubiquity and grievousness of environmental problems.

The environmental studies course I worked with is a broad interdisciplinary survey of the various environmental problems facing our planet. It examines a broad range of global and local environmental issues within the context of an overarching analysis. This analysis is unabashedly holistic and radical; it regards environmental problems as being at their core symptomatic of and inseparable from social, cultural, and economic assumptions, attitudes, and practices, and advocates a fundamental restructuring of these.[2]

It soon becomes clear to anyone teaching such a course that its main pedagogic challenge is not simply the transmission of facts and concepts or even skills in any conventional sense. The elementary physics and chemistry of the greenhouse effect or ozone depletion, for example, is relatively straight-forward. To **know about and understand** the technical details of what is happening in this and many other instances is only the beginning; the far greater challenges lies in enabling students to **integrate** this knowledge into their understanding of the world and their own place in it, and in providing them with a repertoire of ways to begin to **translate their concern into effective solutions**. It is these three interrelated elements—(1) knowing/understanding, (2)

assimilating/integrating, and (3) generating solutions—that together enable "response-ability" towards the crisis. I'll begin this talk with a brief review some past work I have done on the second element, the psychological barriers to and consequences of assimilating knowledge about environmental threats, and then devote the rest of the talk to a discussion of my current thoughts on the third element: students' difficulties in thinking rationally and effectively about solutions to these threats.

ASSIMILATING ENVIRONMENTAL KNOWLEDGE: BARRIERS TO RESPONSE-ABILITY

One of the first things one notices in teaching a course which gives students their first systematic encounter with the environmental crisis is the considerable psychological difficulties and upheavals associated with the assimilation and integration of this new knowledge. The realization that these environmental problems are **real** and that our lives are necessarily implicated in them is fraught with difficulties and resistance, from both within and without. In a previous paper I described and discussed some of these difficulties, and gave suggestions about how educators can work to try to and ensure that their outcome is constructive rather than regressive or apathetic (Garb (1989)). To briefly review, I discussed the psychological barriers to looking squarely at the grievousness and extent of our environmental crisis: the numbing, the trivialization, and the inability to comprehend the reality of circumstances which don't (yet) affect one directly. (Some of these, by the way, are related to the kind of distancing due to technological mediation which Batya discusses in her paper). As students do begin to face the reality and seriousness of the problems they often experience quite severe challenges to their world-view. They become aware of a whole range of dangers, oppressions, and inequities that were heretofore invisible, shattering the secure world in which adults have and always will take care of things, where one can plan a secure career and life for oneself and family. This disruption often engenders quite a profound disorientation: students are overwhelmed by the immensity, complexity, ubiquity, and seeming intractability of the problems. As they become more sensitized to the environmental dimensions of everyday life students suddenly find that simple acts like driving to the store, brushing their teeth, or looking at the sky, are problematic, as these either entail or remind them of ecological destruction. Often they feel resentment about growing up in times like these where decisions are so problematic and the future so threatened. And resentment at being ousted from a state of innocence and having to be more conscious of these issues than their friends who simply "enjoy life while it lasts". Many find themselves isolated from family, friends, roommates, and partners who do not share their new concerns, and often feel self-doubt as they test their new-found insights and convictions in unsupportive contexts. Students find themselves caught between mixed messages and struggle to reconcile these: on the one hand their entire surround tells them that things aren't that bad, and

business will continue as usual, while on the other hand everything they learn in the class argues that things are really bad, and that drastic and immediate change is imperative. And as they struggle to translate their new understandings and concerns into action they grapple with difficult questions: where to start? What can one person do anyway? How do I balance my commitment to "saving the world" with my personal wants and needs? (The kind of tension between discretionary and obligatory responsibility which Peter discusses).

At the end of that article I discussed some of the common-sense ways to support students through these psychological challenges; without such support they can easily become un-responsive—paralyzed, despairing, cynical, or defensively flippant. I emphasized the usefulness of incorporating psychological reflection into the course and of encouraging students to talk about their emotional responses to the problems, so they become aware that they are not alone in their perceptions and feelings; the need for acknowledging the true difficulty of the situation and for openly discussing the apocalyptic images and feelings it elicits; the need to counter alienation in the classroom, and for the support of a like-minded community; the importance of an explicit discussion of the limitations and contradictions of studying such momentous and involving issues in a conventional academic setting; the need to facilitate empowerment and a sense of political efficacy through personal engagement in a concrete issue; and the need for providing positive role models and exemplars of the change possible through committed and creative action.

RESOLVING ENVIRONMENTAL PROBLEMS: IDEOLOGICAL BARRIERS TO RESPONSE-ABILITY

As useful as that article was, both for myself and for students, I still sensed a dissatisfaction. Though this kind of support was useful in assisting students to integrate knowledge about environmental problems into their view of the world I still felt that students continued to experience another kind of difficulty. As I analyzed student papers once again, I began to see that they were seriously frustrated and hampered in their attempt to envision and work through actual strategies and solutions for redressing the crisis. Realizing that the problems are real and that they inescapably involve us is one step towards response-ability—having the tools to think constructively about resolving these problems is another. I would like to devote the remainder of this paper to discussing this latter barrier.

Let me starkly state my analysis of a central component of students' difficulties in arriving at an effectual and satisfying analysis or strategy for tackling environmental problems. The environmental crisis is a radical problem, demanding a radical critique of society and radical solutions.[3] Most

students, however, (and many of us) are immersed in (at best) a dominant liberal ideology. As I hope to demonstrate, in thinking about environmental problems students draw upon the common-sense notions which this ideology provides for understanding the world, and these are inadequate for the task of understanding the root causes of the environmental crisis, and thus for generating strategies towards its fundamental resolution.

This, in a rather crowded nutshell, is the analysis on which the rest of this paper is based. Before proceeding I should note this analysis' reliance on the notion of "ideology", a concept with an extensive and complex heritage at the heart of critical theory; its reliance on the notion of the liberal ideology/world-view, whose philosophical and historical roots and ramifications deserve discussion; and its reliance on a partisan and recently emergent perspective on the political economy of environmental destruction. Limited time will allow for only a skeletal paragraph to elaborate on these, and I refer you to my footnotes and to the bibliographic references they contain.[4]

I use ideology in its pejorative sense to refer to a thought form which is systematically distorted in a way which serves dominant values, interests, and social practices.[5] An ideology reifies certain socially-constructed aspects of the world (practices, structures, consciousness) and presents these as necessary, invariant, and absolute—in short, as "natural". By doing so it masks social contradictions and exploitation, and deludes people about themselves, their society and their position in it, and their own and others' best interests. The liberal worldview, which is the dominant ideology of the contemporary west, is a tightly interwoven complex of values, perceptions, and beliefs that arose with the commercial and scientific revolutions of early modern Europe.[6] Historically, this ideology was inextricably bound up with the rise and spread of a market economy and later industrial capitalism; today it continues to implicitly support, stabilize, and legitimate this economic system and the inequitable social relations on which it relies.[7] It is becoming increasingly clear that much of the environmental crisis we find ourselves in today is a result of the destructively expansive trajectory of modern industrial capitalism which has fundamentally reorganized political, social, and technological realities on a global scale, and transformed our ways of understanding the natural world.[8] I would claim that both independently and especially by virtue of their intimate linkage with capitalist economic arrangements, the central tenets of liberal ideologies have helped to shape enabled contemprary structures and processes which are environmentally destructive, and that they continue to support these by mystifying the roots of this destruction, and by rendering alternatives invisible.[9] But because we and our students live in a world deeply traversed by these ideologies we tend to reproduce them even in our thinking about solutions to environmental problems. In the remainder of this paper I would like to isolate three salient examples of ideological

thought patterns and demonstrate the ways in which these impede or undermine students' capacity to grapple effectively with environmental crisis.[10]

IDEALISM

One pervasive form of distorted thinking which students ascribe to with varying degree of explicitness is idealism. In its most extreme form, an idealistic viewpoint claims that ideas are the primary features of reality; more moderate forms accept the existence of a separate material world but still assign primacy and independence to the realm of ideas and human thought in shaping the material world.[11] Presented in such an explicitly articulated way many students might deny they hold such beliefs; however their thinking is permeated with more implicit versions of such notions. Repeatedly I find that they assign primacy and independence to structures and processes **within the mind** in shaping individual and collective actions *vis a vis* the environment; they give less attention, if any, to the ways in which social, political, and economic forces fashion, modulate, and constrain how people act and think in this regard. The immediate corollary of this kind of thinking is that efforts towards change are envisioned primarily in terms of internal subjective transformations within existing arrangements of power, rather than in terms of objectively changing these arrangements. Because ideas are viewed as free-floating, rather than emerging from material practices, one often finds calls for ecological education or for the wider dissemination of knowledge about environmental problems as if ideas can be simply transplanted from one head to another, without any consideration of the material circumstances or social position of their bearer, and as if a simple transmission of knowledge or some mysterious rectification of attitude will change our treatment of the natural world; there is very little consideration of the interests and constraints which in fact make "wrong ideas" only a very small part of the problem.[12] Similarly, one often finds blithe exhortions to adopt a world-view similar to that of Native Americans, as if this could be done by sheer will-power and mental effort—no thought is given to the material and social practices which enabled such a world-view.[13]

I don't want to give the false impression that students are entirely blind to the material aspects of environmental destruction and change. My claim though is that students tend to see inner beliefs and outer material circumstances as as two separate realms and to unduly (and usually implicitly) emphasize the former. This occurs especially when students experience some degree of cognitive stress. For example a student might overtly recognize that environmental destruction stems not simply from "wrong ideas" but also from greed, power, and material necessity. However when pressed—when it really comes down to thinking through just how things are actually going to change—a strong undercurrent of thinking emerges which is idealist to the point of being almost

magical. In their papers, for example, students very often describe and reflect on a particular environmental issue, quite coherently build a case which points inescapably towards the necessity for radical economic and political restructuring, and then suddenly and entirely discontinuously the paper will end with some wishful platitude on the need for education or a wide-spread spiritual change of heart.[14] Rather than face the cognitive and affective dissonance which their analysis raises, and go through the the slow laborious work of piecing together a program which will change actual material practices, resolve complex conflicts of interests, or undo the kinds of exploitative relations which fuel environmental destruction, there is a sudden flight, quite dazzling in its evasiveness, towards utterly idealist solutions. This is to be expected given prevalent ideologies which do not equip people with tools for thinking through objective responses to these problems, and indeed encourage people to satisfy their needs through the imagination and in the private sphere, rather than actually and in the public sphere.[15]

For example, here is a student summing up an essay:

> "The complex nature of environmental problems, the slowness of psychological awakening, and the limits to which individuals can respond in a productive manner all conspire to hold up the process of finding solutions. Yet the wheels of a new consciousness are in motion, environmental degradation is evident and information towards solution is mounting."[16]

This excerpt exemplifies a characteristic structure which recurs often. A discussion of the problems leads to an exasperation at their complexity and intractability to individualistic solutions. Then, so as to conform to the well known schema of a balanced upbeat conclusion, we have a tagged-on bit of idealist wishfulness.[17] The paragraph is idealist in its emphasis on individual response and psychological awakening, and its reliance on "new consciousness", awareness of the problems, and new information.

INDIVIDUALISM

In its emphasis on individual responses to the problem, this previous example demonstrates another ideological strain which is common amongst students and which hampers their thinking about environmental solutions: individualism, or the inability to think in terms of collectivities. Individualism is another deeply entrenched aspect of the modern world-view which grants primacy to the thinking and behavior of the individual person, and presents a picture of the self as willful, independent, and transcendent of social and historical constitution or constraint.[18] This atomistic

habit of thought is crippling in approaching the environmental crisis, whose roots and solutions are so strongly social.[19] Environmental problems are not simply the result of the cumulative impact of innumerable individuals living their lives; they result from the organized actions of social collectivities into which humans are organized. In the industrialized North, for example, much of the environmental destruction stems from the activities of large corporations; much of the destruction in the underdeveloped South stems from the legacy of colonial and neo-colonial exploitation. Yet these groupings—of class, state, corporation—the whole middle ground in-between the individual on the one hand and a generic "everyone" on the other, is murky and unknown territory for most students. Similarly clouded is the possibility for change through collective action of a group responding in a unified way to a common sense of oppression. Student's education and cultural milieu has given them very little training or experience of communal life or collective deliberation and action.[20] In their papers they tend to slide between a focus on what **individuals** can do (recycling, saving water, modifying consumption, etc.,) which seems ineffectual given the huge scale of problems, and a blanket focus on the changes that need to occur in "**society as a whole,**" which doesn't afford any foothold in thinking or engaging particularly and concretely with them. The individuals interaction with others, when it is envisioned at all, takes the form of the few enlightened environmentalists "persuading" or "convincing" others about the environmental cause.

This mismatch between a social problem and the deeply individualistic terms in which students think, leaves them with a diffuse sense of impotence and an unarticulated frustration in their attempts to grapple with and respond to issues they care about. Though they rack their brains, the individualistic conceptual ruts in which they are unbeknowingly mired allow them to generate only an extremely impoverished range of solutions. Sensing the inadequacy of these solutions, yet lacking genuine alternatives, one often finds students doubling the fervor with which they push these individualistic measures, sometimes to the point of absurdity, as if sheer individual will power and good intention—if only I do enough, persuade others enough—would make the problem go away. For example students will pursue individualistic solutions such as recycling or careful consumption to strenuous almost debilitating extremes, without thinking about the larger social arrangements which allow or even necessitate wasteful packaging and a high level of consumption in the first place, or about how these arrangements may be changed through collective political and social action (such as boycotts, communal living, activism for legislative reform, or even more radical activism).

Let me give you a sense of the flavor of this kind of thinking. One student for example finds it:

> ". . .difficult to ignore the ever present feeling that what I do as an individual is of little consequence in the face of the vast number of

> environmental issues we face today. However, because I now have a better understanding of how problems in the environment arise, and of how their resolutions are attempted, I feel a sense of urgency to do my part as an individual to save the environment. . . above all, I realize that indeed I can, and do, make a difference".[21]

Though he senses the inadequacy of efforts as an individual, he has nothing else in his repertoire. All he can do is heroically reaffirm commitment to individual action. The jumps in logic in this excerpt, and often in student papers more generally, are not merely a function of unpolished writing skills in an undergraduate essay, but are symptomatic of deeply rooted elisions and evasions in thinking. We should pay careful attention to such discontinuities, as they reflect the places where because of ideological mystification the mind cannot think things through to their consequences.

Or take another excerpt which condenses patterns that occur widely in student papers.

> "As overwhelming and pervasive as the threats to our existence are I have to remind myself that there are certain areas that I can control and choices I can make as an individual that in a very direct way, however small, contribute to the easing of the environmental crisis. Until the technology available to society undergoes major changes, this type of individual initiative and action to bring about changes . . .is really one of the most empowering choices one can make in the face of so much doom and gloom".[22]

Notice the clinging to the possibility for useful individual action in the face of such overwhelming problems. And notice the way in which responsibility for larger social changes (of "the technology available to society" in this case) is relinquished, indicated by the passive phrasing ("undergoes major changes"), the complete lack of agency, and the faceless reification ("society" as a generic abstraction). And, also quite typically, this student continues in the next paragraph: "there are times however that really overwhelm me and it becomes very difficult to stay positive and to feel as if my personal choices can effect change". Students sense that such individualistic solutions aren't enough, but without alternatives in their conceptual or experiential repertoire they fall into despair; sheer bravado and hopefulness cannot be maintained for long in the face of the looming problems.[23]

SPLITTING AND ROMANTICIZATION

Another kind of distorted thinking which I think is ideological, is a kind of splitting or dissociation.[24] The world is thought about in terms of polarized opposites, with one pole bearing all the disclaimed undesirable elements while the other pole is romanticized and carries all that is fair and wished for—though unattainable. Because these poles are so absolute and far apart, the space between them is felt to be unbreachable. Students are left on one side of the breach with a vast abstract yearning for the unattainable ideal on the other side (which late adolescents and early adults are very good at anyway), or they despair and retreat away from the chasm. To give a typical example, one student writes:

> ". . .[S]ometimes I am paralyzed by the extent of the problems, and I dream of taking my entire family to a far-away place where we would live in harmony with our surroundings safe from the threats posed by modern society. But then I remember that we humans have poisoned all of the air, all of the water, and since it is all interconnected, all of the land. So, I turn to someone for a hug and try to bury the fear deep inside me again and continue my life as I always have".[25]

Here we have concisely the typical structure of thinking: an unattainable ideal, an unlivable actual, and a retreat into the forgetfulness and comfort of the private realm. Here as is often the case there is no sense of being able to devise concrete and particular ways for moving from here to there. "A total change or nothing" is the attitude which keeps the "ideal" separate and distant, and often becomes a justification for indeed doing nothing.[26] As one students says:

> I know that what I've learned in [this course] is imperative information which I should base my life upon. But how can I just magically transform into this new person, and drop everything I once stood for?[27]

I see this kind of splitting and romanticization in other forms. The split between a past which is healthy and whole, but irrevocable lost, and is thus separated by a chasm from the present or the future, which is utterly spoiled. Similarly the "primitive" is separated by some great divide from the modern. Because each pole is seen as an all-or-nothing proposition, and we obviously "can't go back" to the "primitive," students don't even consider the selective adoption of <u>elements</u> of past ways of living. "We can't all live like bushmen" is the kind of knee-jerk response which ensures that the past is kept in its idealized and unattainable position.[28] In a similar way pure wilderness is counterposed to the sullied city. The two are held utterly apart: only in the wilderness can one feel in tune with nature, while the city is inescapably alienating. And since we know that its impossible to

live in the pure wilderness anymore, all the difficult work of actually bridging real and actual is evaded. Another kind of splitting occurs in people's thinking about the nature of "evil". In an attempt to ferret out an ultimate cause for the variety of wrongs they discover in the course, students often bypass the difficult work of thinking about the complex admixture of stupidity, greed, carelessness, and especially the coercive social arrangements in which ordinary people find themselves, from which environmental problems stem; instead they fall back on caricatured notions of wicked and conspiring businessmen or corporations. Here again, this kind of polarization freezes productive thinking.

A final note on my analysis of idealist and individualist thinking. My critique of these forms of ideology is not intended to argue for a simplistic materialist determinism which denies the role of ideas and spiritual conviction in the human relationship with nature, nor is it intended to negate the role of individuals in achieving change. This would simply invert these dualistic ways of thinking, rather than redress the way in which they artificially sunder apart a whole whose elements are inextricably bound together in a dialectic of mutual influence.[29]

THE PEDAGOGIC CHALLENGE

What is our responsibility as environmental educators in the light of the kinds of ideological barriers to student response-ability I have discussed here? As a start I recommend a two-pronged approach.[30] At the same time that we try to give students an understanding of the structures and processes which are destroying the earth we must also give them an understanding of the ways in which these are dissembled and thus maintained by cultural ideologies, and the ways in which we are deeply immersed in these ideologies. This can be done, for instance, by urging students to identify more precisely the reasons for their vaguely-felt dissatisfaction at their own repertoire of responses, by encouraging them to look squarely at and attempt to move beyond the contradictions and dead ends in their own reasoning processes, and by presenting them with a more extensive version of the kind of analysis and examples used in this paper.[31] A useful exercise is to have students write a brief paragraph in the first class meeting on the nature of environmental problems and how these should be solved. These will serve as an excellent record of common-sense assumptions and understandings which students can analyze later in the course after a discussion of the notion of ideology. Additionally, ask students in the first meeting to write a brief description of how they became concerned with environmental issues, and more specifically, why they chose to attend the course. These provide excellent material for a later discussion of the kind of factors which change people's environmental attitudes and perceptions. (In my experience well over half the class refer to

some direct personal contact with habitat destruction or exposure to toxics as originally motivating their concern).

However, it will not work to simply deflate the ideological thought patterns which are such common currency without beginning to provide some experiential and conceptual alternatives to them. One source of alternatives is the growing body of literature, some of which I cite here, which analyzes (and to a lesser extent works towards resolving) environmental problems from materialist and social perspectives. The day-to-day prevalence of taken-for-granted world-views will, however, easily override the ideas presented in written material unless students also have more experiential contact with alternatives. I suggest a facilitated group attempt at analyzing and recommending action around a single, preferably local, environmental problem. This is an opportunity to give students concrete models and experience of the middle ground which is so absent in liberal thought. For example, the middle ground of practical action and strategy which bridges the intolerable actual and the unobtainable ideal. The middle ground of social action which lies in-between individual action and and the magical transformation of a faceless "everyone". Or a middle ground for the understanding of people's participation in environmental destruction which provides a sense of people like you or me responding understandably to the interests and constraints established by socio-economic structures, rather than caricatured images of villainy or of heroic transcendent adherence to an impossible moral/environmental impeccability. To enable responsibility, we need to give our students a sense of the feasibility and excitement of dissolving the ideological polarisations which mystify our thinking, so that we can begin the difficult but real struggle of responding fully to our earth's predicament and finding ecologically sustainable ways of sharing the earth.

NOTES

1. I would like to thank the following people who have discussed their teaching experience with me or commented on earlier versions of this paper: Alan Miller (who teaches the course), Peter Goering, Thea Liskam, and Debra Jensen (teaching assistants for the course), Debra Hammond, Florence Gardner, Michael Allen, Peter Kahn, Batya Friedman, and the past students of CRS10.

2. Dr. Miller's opening remark when teaching this course is usually something to the effect that there are no environmental problems, only social/political/economic/environmental problems.

3. By "radical" I hearken back to the etymological source of the word: a radical approach to environmental problems attempts to understand and change the root causes of environmental destruction, rather than to attempt the reform and curtailment of current environmental practices within existing frameworks. See Buttel (1976) for a useful comparison of radical and non-radical (or as he terms them "Order" versus "Conflict") approaches to environmental problems and social change. See also footnote 8 below.

4. In reality this perspective is no more partisan than the liberal lense through which environmental issues are often viewed.

5. For an excellent and balanced discussion of some of the complex and difficult history of the word "ideology" and its usage see Williams (1977). For a more comprehensive historical account of the evolution of the concept see Larrain (1979). For a meticulous philosophical clarification see Geuss (1981). For an introduction to critical theory more generally see Held (1980) and Jay (1973). On the positive, neutral, and pejorative senses in which the word ideology is used see Geuss, pp. 12-22.

6. For an excellent account of liberal ideology and the historical context in which it evolved see Arblaster (1984). Also see Unger (1975) and particularly his discussion of the interdependence of liberal psychology and liberal political doctrine.

7. It is primarily for the sake of brevity that my discussion here focusses on the contributing role of capitalism to the current environmental crisis, and does not discuss the ways in which environmental destruction stems from patriarchal gender relations and the ideological structures which support these, nor the ways in which these two forms of oppression are intertwined.

8. The kind of perspective I rely on here in my analysis of the roots of environmental crisis is informed by the recent synthesis of left and environmental thinking into what has begun to be called a "socialist ecology". Historically, with the exception of a few classic works (Williams (n.d.), Merchant (1980), Schnaiberg (1980), Commoner (1971), Bookchin (1982)) much of the early environmental movement was markedly apolitical (equating environmental protection with aesthetic improvement or emphasizing individualistic and voluntaristic solutions), while the socialist left viewed ecological movements with deep ambivalence, considering them elitist and lacking in an adequate social and material analysis. The last few years, however, have seen a flowering of dialog between "Red" and "Green" perspectives in both the U.S. and Europe, and a growing literature attempting to synthesize their respective concerns. See for example the new U.S. journal Capitalism, Nature, Socialism, The British journal New

Ground, the debates spread through the 1989-90 issues of Zeta Magazine, as well as Benton (1989), Ryle (1988), and Merchant (forthcoming).

9. An analysis of how some elements of liberal ideology contribute to environmental destruction may be found in Catton and Dunlap's discussion of the "Dominant Western Worldview" William Catton and Dunlap (?) or Devall and Session's (1985) derivative discussion of the "Dominant Modern Worldview". These accounts, however, lack the teeth of a more explicit linkage to social and economic systems.

10. Though I have chosen to isolate and discuss only these three threads of the fabric of liberal ideology they are only part of an extended and pervasive worldview with an overall consistency and persuasive internal logic. Other elements which could be analyzed similarly are the liberal notion of freedom (defined primarily as freedom from the constraints of the state), the opposition of innate desires and appetites to reason, the division of public and private spheres, and the divorce of fact and value. These too pervade students thinking and affect the way in which they approach environmental problems.

11. A typical expression (taken from a student paper) is the following: "we shape our world with the tools of perception and. . .shifts in perception can bring about staggering internal and external restructuring" (JH, CRS10, F' 89).

Idealist world-views can be said to be ideological in that they typically have their social origin in a certain privileged sector of society, reflect the experience of those sectors, and solidify the social arrangements which maintain their ascendancy. Thus historically, idealist viewpoints have originated in the higher levels of society and academia (whereas materialist views have originated in the lower) (See Kearney (1984) pp. 17-23). In a society with a division between mental and manual labour it is the privileged elite who can entertain idealist accounts of change and action which discount the role of material forces and assign primacy to one special kind of labour: the creation and dissemination of ideas. And idealist world-views are inherently conservative: they maintain the status quo by diverting attention away from the social/material hardships which are the concerns of the lower classes and from the ways in which change can take place through humans shaping their own material and social relations.

12. I am reminded here of Marx's parodying of idealist thinking:

> Once upon a time an honest fellow had the idea that men were drowned in water only because they were possessed with the idea of gravity. If they were to knock this idea out of their heads, say by stating it to be a superstition, a religious idea, they would be sublimely proof against any danger from water". Marx and Engels, Preface to The German Ideology, London, 1963, p. 2. (Quoted in Williams (1977) p. 58).

Idealist thinking with respect to environmental change, the belief that "giving people the right information" will alone transform their behavior, is widespread, and even in quarters of the U.S. environmental movement. The conservative nature of this kind of belief may be sensed from the irony of a Gulf oil advertisement in Natural History Magazine which declares under the banner "Understanding is Everything" that Gulf's funding of scientific research will bring an understanding of "man's place in the ecological structure. . .on the simple theory that no thinking person can share in the destruction of anything whose value he understands". Advertisement reprinted in Haraway (1989) p. 134.

13. Compare this model of the relationship of ideas to change, with the following: "The mode of production of material life conditions the social, political, and intellectual life process in general. It is not the consciousness of men that determines their being, but, on the contrary,

their social being that determines their consciousness. (Marx, Preface to A Contribution to the Critique of Political Economy, quoted in Kearney, p. 13.). Or with the following: "...the removal of these notions from the consciousness of men, will ...be effected by altered circumstances, not by theoretical assumptions." (Marx and Engels, The German Ideology, p. 15, quoted in Williams (1977) p. 65

14. Indeed we see similar tendencies amongst some elements of the environmental movement, and especially its "Deep Ecological" and "New Age" sectors. For instance, this habit of idealist evasion so common in student papers can be found, albeit in a vastly more elegant and factually-elaborated form, in Bill McKibben's recent best seller, The End of Nature. In the shorter version which appeared in the New Yorker (1989), McKibben's presents an extremely clear and beautifully-written essay on the nature and consequences of global climate change, all of which would seem to demand a radical restructuring of national and global economic relations and practices. Instead the essay (and book) end, with a deeply idealist plea for a "deep ecological" change of heart. McKibben calls for a "Copernican shift" in our world-view, and for "psychological transformation." "If our thinking changed," he claims "the details would follow of their own accord". (McKibben (1989), pp. 47-104). For a critique of Deep Ecology's idealism and lack of a social analysis see Bookchin, Socialist Review. Also see Guha (1989)

15. See Sampson (1981) p. 739.

16. TO, CRS10, f '89.

17. I have seen papers which literally end "and the world lived happily ever after" as if to parody this tendency (EP CRS10, f 89).

18. The term "individualism" actually contains a cluster of ideals and perceptions which together form the heart of the liberal world-view. See Albaster for a more extended discussion.

19. On the social origins of "environmental" problems and for critiques of the way in which conservative and liberal thought reifies these problems in ways which obscure their social origins, see for example Mamdani (1972), Harvey (1974), and Galtung (1973) (on the "population problem, "), Goldman and Connor (1988) and Schnaiberg (on "environmentally destructive technologies") and Schnaiberg (on "overconsumption").

20. The emphasis of much early environmental thought was similarly individualistic in its approach (See Paehlke (1989), p. 1), as is most mainstream thinking about solving environmental problems. : "... [I]t is individuals who must occupy the front lines in protecting the environment" declares a recent issue of Time magazine (Garelik (1989)).

21. MM, CRS10, F 89.

22. JH,10 F' 89.

23. It is interesting to note that almost every instance where the importance of individual action is affirmed has a strident self-persuading tone to it, very often prefaced, as in this instance, by a remark about needing to "remind oneself" or "spur oneself on" in this belief.

24. Or in more formal Marxist terms, the inability to think dialectically. The mechanism of splitting has been discussed as a phenomena of individual psychology, though it has obviously acquired much cultural elaboration and often serves ideological functions. See for example Said (1978).

25. RP, CRS10, F 89.

26. Psychologically this response could be seen as a form of infantile omnipotence. The feeling that we should "do it all" is predicated on the illusion that we can do it all. Students paralysis could be seen as stemming from the difficulty involved in disrupting this illusion.

27. LG, 10 F 89.

28. On the great divide separating the primitive from the modern in popular and academic thinking see Goody (1977). On not being able to "go back" see Shepard (1989).

29. See Williams (1977), p. 61.

30. See Ollman (1979). An exciting account of how teachers may assist students to examine and overcome ideological barriers to understanding is Shor (1980). The hopefulness of the following paragraphs should not, however, downplay the huge and often irreconcilable paradoxes of trying to do such work within the context of a conventional university class (see Miller (1983)), not to mention the massive counterforce posed by popular culture.

31. In a more advanced course it may be useful to explicitly discuss the basic principles of liberalism and their prevalence in American culture. The first four chapters of Arblaster (1984) might serve as an appropriate class reading.

BIBLIOGRAPHY

Arblaster, A. (1984). The Rise and Decline of Western Liberalism . New York, NY: Basil Blackwell.

Benton, T. (1989). Marxism and Natural Limits: An Ecological Critique and Reconstruction. New Left Review, 178, 51-86.

Bookchin, M. (1982). The Ecology of Freedom: The Emergence and Dissolution of Hierarchy. Palo Alto, CA: Cheshire Books.

Buttel, F. H. (1976). Social Science and the Environment: Competing Theories. Social Science Quarterly, 57(2), 307-323.

Commoner, B. (1971). The Closing Circle . New York:

Devall, B., & Sessions, G. (1985). Deep Ecology: Living as if Nature Mattered . Salt Lake City: Perigrin Smith Books.

Galtung, J. (1973). 'Limits to Growth' and Class Politics. Journal of Peace Research, X(1-2),

Garb, Y. (1989). Psychological and Moral Responses to Environmental Knowledge: Reflections on the Impact of an Introductory Course in Environmental Issues. Educational Horizons, 67(3), 82-87.

Garelik, G. It's Not Easy Being Green. Time, Dec. 18, 1989.

Geuss, R. (1981). The Idea of a Critical theory: Habermas and the Frankfurt School . New York: Cambridge University Press.

Goldman, M., & Connor, J. O. (1988). Ideologies of Environmental Crisis: Technology and its Discontents. Capitalism, Nature, Socialism, 1(Fall), 91-106.

Goody, J. (1977). The Domestication of the Savage Mind . New York: Cambridge University Press.

Guha, R. (1989). Radical American Environmentalism and Wilderness Preservation: A Third World Critique. Environmental Ethics, 11(Spring), 71-83.

Haraway, D. (1989). Primate Visions: gender, Race, and Nature in the World of Modern Science . New York: Routledge.

Harvey, D. (1974). Population, Resources, and the ideology of Science. Economic Geography, 50(3 (July)), 256-277.

Held, D. (1980). Introduction to Critical Theory: Horkheimer to Habermas . Berkeley: University of California Press.

Jay, M. (1973). The Dialectical imagination: A History of the Frankfurt School and the Institute of Social Research 1923-1950 . Boston: Little Brown and Company.

Kearney, M. (1984). World View . Novato, California: Chandler and Sharp.

Larrain, J. (1979). The Concept of Ideology . Athens: University of Georgia Press.

Mamdani, M. (1972). The Myth of Population Control: Family, Caste, and Class in an Indian Vilage . New York: Monthly Review Press.

McKibben, B. (1989). The End of Nature. New Yorker, Sept. 1989, 47-105.

Merchant, C. (1980). The Death of Nature: Women, Ecology, and the Scientific Revolution . San Francisco: Harper and Row.

Merchant, C. (forthcoming). Radical Ecology .

Miller, A. (1983). The University in America: Never an Ivory Tower. Manuscript, Dept. of Conservation and Resource Studies, University of California, Berkeley.

Ollman, B. (1979). On Teaching Marxism. In B. Ollman (Ed.), Social annd Sexual Revolution: Essays on Marx and Reich (pp. 124-156). London: Pluto Press.

Pachlke, R. C. (1989). Environmentalism and the Future of Progressive politics . New Haven: Yale University Press.

Ryle, M. (1988). Ecology and Socialism . London:

Said, E. W. (1978). Orientalism . New York: Pantheon Books.

Sampson, E. E. (1981). Cognitive Psychology as Ideology. American Psychology, 36(7), 730-743.

Schnaiberg, A. (1980). The Environment: From Surplus to Scarcity . New York: Oxford university Press.

Shepard, P. (1989). A Post-Historic Primitivism. Paper presented at the conference "The Wilderness Condition: Realia Conference on Environment and Civilization", Estes Park, Colorado, August 17-23, 1989.,

Shor, I. (1980). Critical Teaching and Everyday Life . Chicago: Chicago University Press.

Unger, R. M. (1975). Knowledge and Politics . New York: The Free Press (Macmillan.

William Catton, J., & Dunlap, R. (?). A New Ecological paradigm for Post-Exuberant Sociology. American Behavioural Scientist, 24(1), 15-49.

Williams, R. (1977). Ideology. In R. Williams (Ed.), Marxism and Literature (pp. 5-71). New York: Oxford University Press.

Williams, R. (n.d.). Socialism and Ecology (pamphlet ed.). London: Socialist Environment and Resources Association.